

HEAD SUPPORT DEVICE AND DISK DRIVE USING THE SAME

Field of the invention

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The present invention relates to a head support device to read /write data on a disk using a floating head and a disk drive using the same.

Background Art

The hard disk drive (or HDD) to read/write information on a magnetic disk (or disk) employs the disk as a storage medium and read/write data on the disk surface using a magnetic head (or head). The HDD typically comprises a head support device that suspends the head at a predetermined floating height over the disk surface to move the head to a target location on the disk radially.

An example of the head support device with the floating head in a conventional HDD is described as follows with reference to FIGS. 8 and 9. FIG. 8 is a plan view showing the main structure and relation between the head support device and the disk ("disk" also referred to as "recording medium"). FIG. 9 is a perspective view showing the main structure of the head support device in a conventional HDD.

Head support device 91 comprises: comparatively less rigid head suspension ("head suspension" also referred to as "support arm") 92; plate spring 93; comparatively more rigid base arm 94; slider 95 mounted on the surface of one end of head suspension 92 facing disk 98; and a head (not shown) mounted on slider 95 as shown in FIGS. 8 and 9. Head suspension 92 with comparatively less rigidity is bent to form plate spring 93 at one end, and plate spring 93 is connected to base arm 94. Moreover, base arm 94 is secured